PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: C. A. Briggs, et al.

Serial No.:

- - 1

Filed: December 30, 2003

For: Variant Human Alpha7

Acetylcholine Receptor Subunit, and Methods of Production and Uses

Thereof

Examiner:

Group Art Unit: 1647

Case No.: 6017.US.D2

Express Mail Mailing Label Number EV 314258977 US

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as Express Mail Post Office to Addressee Service under 37 C.F.R. 1.10 on the date shown below with sufficient postage addressed to the:

Commissioner for Patents Mail Stop Patent Application P. O. Box 1450 Alexandria, VA 22313-1450, on:

Date of Deposit: December 31, 2003

Wanda E. Smith

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Mail Stop Patent Application P. O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Applicants draw the Examiner's attention to the documents listed on the attached Form 1449 and request the Examiner to consider them and make them of record in this application. No representation is made that a search has been conducted or that no closer art exists, nor is this statement intended to take the place of the Examiner's own independent search of the prior art. This statement is made in compliance with Applicants' duty of disclosure and is not an admission of any kind, and specifically is not an admission that the document cited herein is prior art as to the invention claimed or is properly citable in rejection of this application.

The Applicants submit herewith Form PTO 1449 listing the references cited in this Information Disclosure Statement. All of the listed references are available for that referenced in the parent application, U.S. Serial No. 09/954,936, which was originally submitted in the originally filed parent application, U.S. Serial No. 08/771,737. Applicants assume the Examiner has ready access to the references already submitted with U.S. Serial No. 08/771,737 (of which the instant application is a divisional application of U.S. Serial No. 09/954,936). If the Examiner needs further

copies of any references cited in U.S. Serial No. 08/771,737, please contact the Applicant's attorney, Mimi C. Goller, and she will provide copies to the Examiner.

The Applicants respectfully request that the Examiner initial next to each reference listed on the enclosed Form PTO 1449 indicating that the Examiner has considered and made those references of record in this application and that a copy of the initialed Form PTO 1449 be returned to Applicants.

No charge is required for the submission of this Information Disclosure Statement under 37 C.F.R. § 1.97 (b). The Commissioner is hereby authorized to charge any additional filing fees required under 37 C.F.R. § 1.17 concerning this transmission, or to credit any overpayment to Deposit Account No. 01-0025.

23492

Respectfully submitted, C. A. Briggs, et al.,

ABBOTT LABORATORIES

Telephone: (847) 935-7550 Facsimile: (847) 938-2623

Mimi C. Goller

Registration No. 39,046 Attorney for Applicants

Wood, Phillips, Katz, Mortimer & Clark 500 West Madison Street

Suite 3800

Chicago, IL 60662-2511 Phone: (312) 876-2109 Fax: (312) 876-2020 Lisa V. Mueller

Registration No. 38,978 Attorney for Applicants

DATE:

Form PTO - 1449 (Modified)

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Modified)

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

(37 CFR 1.98 (b))

ATTY. DOCKET NO. SERIAL NO. SERIAL NO. FILING DATE

ATTY. DOCKET NO. SERIAL NO. SERIAL NO. SERIAL NO. SERIAL NO. SERIAL NO. MILITARY DOCKET NO. SERIAL NO. SERIAL NO. MILITARY DOCKET NO. MILITARY DOCKET NO. SERIAL NO. MILITARY DOCKET NO. MILITARY

U.S.PATENT DOCUMENTS

EXAMINER								ISSUE			SUB	FILING
INITIAL	PATENT NUMBER					BEF	₹	DATE	INVENTOR	CLASS	CLASS	DATE
		2	0		2	5	7	4/13/93	Heinemann, et al,			

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		PUBLIC-				TRANS-		
	DOCUMENT NUMBER	ATION	COUNTRY OR		SUB	LATION		
		DATE	PATENT OFFICE	CLASS	CLASS	YES NO		
BI	9 4 2 0 6 1 7	9/15/94	PCT					

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

C1	L. E. Adler et al., Biol. Psychiartry, Vol. 32, 607-616 (1992)
C2	M. H. Akabas et al., <u>Biochem.</u> , Vol. 34, 12496-12500 (1995)
C3	A. Akaike et al., <u>Brain Res.</u> , Vol. 644, 181-187 (1994)
C4	K. Aoshiba et al., <u>J. Lab. Clin. Med.</u> , Vol. 127, 186-194 (1996)
C5	M. Ballivet et al., <u>J. Mol. Biol.</u> , Vol. 258, 261-269 (1996)
C6	C. Beck et al., Neurobiol, Disease, Vol. 1 95-99 (1994)
C7	C. Beck et al., Epilepsia, Vol. 36, S28 (1995)
C8	D. Bertrand et al., Proc. Natl. Acad. Sci. (USA), Vol. 89, 1261-1265 (1992)
C9	D. Bertrand et al., Pro. Natl. Acad. Sci. (USA), Vol. 90, 6971-6975 (1993)
C10	D. Bertrand et al., Sem. Neurosci., Vol. 7, 75-90 (1995)
C11	R. Blitzer et al., Neurosci. Lett., Vol. 119, 207-210 (1990)
C12	JP. Changeux et al., Trends Pharmacol, Sci., Vol. 13, 299-301 (1992a)
C13	JP. Changeux et al., Q. Rev. Biophys., Vol. 25, 395-432 (1992b)
C14	J. Chen et al., Biophys. J., Vol. 69, 849-859 (1995)
C15	S. Couturier et al., Neuron, Vol. 5, 847-856 (1990)
C16	D. Donnelly-Roberts et al., Brain Res., Vol. 719, 36-44 (1996)
C17	A. Engel et al., Ann. Neurol., Vol. 40, 810-817 (1996)
C18	A. Ferrer-Montiel et al., <u>FEBS Lett.</u> , Vol. 324, 185-190 (1993)
C19	G. Filatov et al., Mol. Pharmacol, Vol. 48, 379-384 (1995)
C20	R. Freedman et al., <u>J. Neurosci.</u> , Vol. 13, 1965-1975 (1993)
C21	R. Freedman et al., Proc. Natl. Acad. Sci. (USA), Vol. 94, 587-592 (1997)
C22	J. Freeman et al., Nature, Vol. 269, 218-222 (1977)
EXAMINER	DATE CONSIDERED

EXAMINER DATE CONSIDERED

EXAMINER: Initial citation considered. Draw line through citation if n t in c nformance and not c nsidered. Include copy of this form with next c mmunication t applicant.

Form PTO - 1449 (Modified)

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE (Modified) PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 6017.US-D2	SERIAL NO.			
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT(S) Clark A. Briggs et al.				
(Use several sheets if necessary)	FILING DATE	GROUP			
(37 CFR 1.98 (b))		1647			

U.S.PATENT DOCUMENTS

EXAMINER			1					ISSUE			SUB	FILING
INITIAL	 PATENT NUMBER					BEF	₹	DATE	INVENTOR	CLASS	CLASS	DATE

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

	DC	CI	JME	ENT	NU	MBE	≅R	PUBLIC- ATION	COUNTRY OR		SUB	TRANS- LATION		
								DATE	PATENT OFFICE	CLASS	CLASS	YES	ND	

OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)

C23	K. Fuxe et al., Clin. Investig., Vol. 72, 262-268 (1994)
C24	JL. Galzi et al., FEBS Lett., Vol, 294, 198-202 (1991)
C25	
C26	M. Garcia-Guzman et al., Eur. J. Neurosci., Vol. 7, 647-655 (1995)
C27	M. Gopalakrishnan et al., Eur. J. PharmacolMol. Pharmacol Vol. 290, 237-246 (1995)
C28	F. Hory-Lee et al., <u>J. Neurosci.</u> , Vol. 15, 6453-6460 (1995)
C29	B. Hunter et al., Neurosci. Lett., Vol. 168, 130-134 (1994)
C30	K. Imoto et al., Nature, Vol. 335, 645-648 (1988)
C31	J. James et al., <u>Behav. Genet.</u> , Vol. 25, 149-159 (1995)
C32	A. Janson et al., Neurosci., Vol. 57, 931-941 (1993)
C33	P. Kienker et al., <u>Biophys. J.</u> , Vol. 66, 325-334 (1994)
C34	R. Krause et al., J. Physiol. (London), Vol. 489, 779-790 (1995)
C35	S. Leonard et al., Schizophr. Bull., Vol. 22, 431-445 (1996)
C36	V. Luntz-Leybman et al., <u>Brain Res.</u> , Vol. 587, 130-136 (1992)
C37	P. Marin et al., NeuroReport, Vol. 5, 1977-1980 (1994)
C38	E. Martin et al., <u>Drug Dev. Res.</u> , Vol. 31, 135-141 (1994)
C39	C. Newland et al., <u>J. Physiol. (London)</u> , Vol. 487P, P 208 (1995a)
C40	C. Newland et al., <u>J. Physiol. (London)</u> , Vol. 489, 767-778 (1995b)
C41	A. Owen et al., NeuroReport, Vol. 6, 2269-2272 (1995)
C42	P. Pugh et al., J. Neurosci., Vol. 14, 889-896 (1994)
C43	M. Quik et al., <u>Brain Res.</u> , Vol. 655, 161-167 (1994)
C44	F. Revah et al., Nature, Vol. 353, 846-849 (1991)
EXAMINER	DATE CONSIDERED

EXAMINER DATE CONSIDERED

EXAMINER: Initial citation consider d. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Form PTO-1449)

Form PTO - 1449 (Modified)

		U.S. DEPARTMENT C			SERI	AL NO.					
(Modified)	•	PATENT AND TRAD	EMARK OFFIC	JE	6017.US-D2						
					1						
		DRMATION DISCLOSU		APPLICANT(S)							
	SIA	TEMENT BY APPLICA	AIN I	Clark A. Briggs et							
(L	Jse se	everal sheets if ne	cessary)	FILING DATE	GROU	JP					
(37 CFR 1.9			•	·	1647						
(07 01 11 1.0	<u>o (b))</u>	U.S	.PATENT D	DOCUMENTS	<u> </u>						
			ICOLIE		1	GI ID	FILING				
EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	INVENTOR	CLASS	SUB CLASS	DATE				
			57.112	11112111011	02.00	02.00					
	DEIO	N DATENT OR R	UDI ICUED	FOREIGN DATENT	ADDLI	CATION	•				
FC	HEIG	IN PAIENI OR P		FOREIGN PATENT	APPLI	CATION					
			PUBLIC-			CI ID	TRANS-				
		DOCUMENT NUMBER	ATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUB CLASS	YES NO				
			DATE	PATENT OFFICE	CLASS	CLASS	165 160				
	<u> </u>		<u></u>				<u> </u>				
OTHER DOCUMENTS (Including Author, Title, Date, Place of Publication)											
	C45			s. Res. Commun., Vol. 2		-1062 (1	994)				
	C46			Vol. 20, 317-322 (1994							
	C47			Vol. 20, 323-329 (1994	4b)						
	C48	S. Sine et al., Neur									
	C49			es, Vol. 11, 201-203 (1							
	C50			enet. Vol. 74, 199-201		6)					
	C51			armacol., Vol. 15, 152-		0)					
	C52			Abstr., Vol. 22, 1263 (*			-				
	C53			eurobiol. Vol. 15, 427-4)					
	C54			ron, Vol. 14, 71-877 (1		001)					
	C55			Lond. [Biol.], Vol. 243,		331)					
<u> </u>	C56			17, 1127-1133 (1996) Molecular Neuroscienc		217 2	28 (1006)				
·	C58			ogy, Vol. 34, No. 6,			<u> </u>				
	C59			r Pharmacology, Vol.			554 (1994				
	C60	Sequela, et al.	J. Neurosci	lence Vol. 13(2) 596-	604÷(199	3)	, <u>, ,</u>				
	C61	Sambrook, et al	, Molecular	Cloning A Laborato	ry Manual	2nd Ed	lition_				
		(1989) Cold S ₁	oring Erbor	Press, USA, pp 16.2	16.4	· · · · · · · · · · · · · · · · · · ·					
							<u> </u>				
			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·							
				DATE CONCIDENCE	·						
EXAMINE	H			DATE CONSIDERED							
EVARAINED	. 1!	tial aitatian a naid s	ad Draw	ling through sites to	8 m 4 1-	conf ===	ance and				
EXAMINER	idosed	tial citation c nsid r		line through citati n i			ance and				